

WHAT IS CLAIMED IS:

1. A composition for filling a void in a human body, comprising:
a thermopolymer matrix selected from a group consisting of gutta percha, balata, and polyisoprene, and any mixtures thereof; and
a dispersion compound disposed at least partially within said thermopolymer matrix, said dispersion compound comprising at least one of titanium and gold;
wherein the composition has a resilient, non-dispersing state at or below body temperature, and a fluid state after being heated above body temperature, such that the composition may be injected into the void while in the fluid state and thereafter return to the resilient, non-dispersing state.
2. The composition as defined in claim 1, wherein the dispersion compound is less than 50 percent by weight of the composition.
3. The composition as defined in claim 1, wherein the dispersion compound comprises titanium particles forming at least 1 percent by weight of the composition.
4. The composition as defined in claim 3, wherein the dispersion compound comprises titanium particles forming from 20 to 50 percent by weight of the composition.
5. The composition as defined in claim 3, wherein the titanium particles are less than about 20 microns in size.

6. The composition as defined in claim 1, wherein the dispersion compound comprises elongate titanium whiskers.

7. The composition as defined in claim 1, wherein the composition further comprises an additive from a group consisting of a wax and a resin, and any mixtures thereof, to facilitate flow of the composition.

8. The composition as defined in claim 1, wherein the composition further comprises a zinc additive up to 10 percent by weight of the composition.

9. The composition as defined in claim 1, wherein the composition is housed in at least one of a compressible tube and a syringe.

10. The composition as defined in claim 1, wherein the composition is sterilized prior to introduction into the human body.

11. A composition for filling a void in a human body, the composition having a resilient, non-dispersing state at body temperature and fluid state after being heated to a point above body temperature, the composition comprising:

a thermopolymer matrix selected from a group consisting of gutta percha, balata, and polyisoprene, and any mixtures thereof; and

a dispersion compound disposed at least partially within said thermopolymer matrix, said dispersion compound comprising at least one of titanium and gold;

whereby the composition may be heated into said fluid state and introduced into said void while in said fluid state, and thereafter allowed to cool to body temperature and thereby return to said resilient, non-dispersing state to fill said void.

12. The composition as defined in claim 11, wherein the dispersion compound forms from 1 to 50 percent by weight of the composition.

13. The composition as defined in claim 11, wherein the dispersion compound comprises at least one of titanium particles and elongate titanium whiskers.

14. The composition as defined in claim 11, wherein the composition further comprises a zinc additive up to 10 percent by weight of the composition.

15. The composition as defined in claim 11, wherein the composition is sterilized prior to introduction into the human body.

16. A method of preparing a thermopolymer composition, comprising the steps of:

selecting a thermopolymer matrix from a group consisting of gutta percha, balata, and polyisoprene, or any mixture thereof;

selecting a dispersion compound comprising at least one of titanium and gold;

combining the thermopolymer matrix and the dispersion compound to form a thermopolymer composition; and

sterilizing said thermopolymer composition.

17. The method defined in claim 16, wherein the step of sterilizing said thermopolymer composition is accomplished through the use of gamma irradiation.

18. The method defined in claim 17, wherein the gamma irradiation is applied to the thermopolymer composition in the range of between 25 and 40 kiloGray.

19. The method defined in claim 16, further comprising the step of:
including in the composition an additive selected from a group consisting of a wax and a resin, and any mixtures thereof, to facilitate flow of the composition.

20. The method defined in claim 16, wherein the composition is stored in at least one of a compressible tube and a syringe.